**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| **In the Matter of**<br>**Modernizing the E-rate**<br>**Program for Schools and Libraries** | )<br>)<br>)<br>) | **WC Docket No. 13-184** |

# REPLY COMMENTS BY THE STATE CONSORTIA GROUP (SCG) RELATED TO THE E-RATE NOTICE OF PROPOSED RULEMAKING

**Comment Date: November 20, 2013**

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## I. Introduction and Summary

The State Consortium Group, hereafter referred to as (SCG), commends the Commission on the comprehensive nature of this Notice. SCG compliments the FCC on their work and efforts to improve E-rate to prepare our schools and libraries for the 21st century. SCG will address and offer comments on the program goals of the Notice of Proposed Rulemaking (NPRM).

The SCG was formed as an offshoot of SECA, the State E-rate Coordinator's Alliance, to address the need to focus specifically on the more complex E-rate issues facing state, regional, and research and education networks, hereafter referred to as Networks, and large consortia. The majority of the SCG members, representing 29 state networks, are also members of SECA.

SCG appreciates the opportunity to comment on the Notice of Proposed Rulemaking (NPRM). Any proponent of public education that may not understand the need for additional E-rate program revisions should be reminded that when the program started in 1997, schools and libraries were using dial-up access. Today, over 15 years later, the program is still funded at the level that was expected for dial-up or low speed access.

The need for increased E-rate funding illustrates the importance of the program and its ability to fund 21st century tools for students and teachers. Adequate funding is essential to improving the E-rate program. The single most effective step the FCC may take to bolster the success of the E-rate program is to provide funding in an amount that is sufficient to keep up with current demand and 21st century classroom needs.

The SCG recognizes that the program is underfunded and some of the solutions offered will require an increase in the E-rate program's funding cap. SCG encourages the FCC to, as a first step, increase the cap by the inflation factor for each program year. We request that the fund be increased using the the mathematical formula for the inflation factor from 1998 to 2010.

We encourage efficient utilization of E-rate funding through the following concepts:

- **Bulk Consortia Contracts**
- **Streamlining the Program and Application Process**
- **Dark Fiber/Fiber Build outs**
- **Incentives for Consortia Applications**

## II. Advantages of State, Regional and Research & Education Networks

## A. Network Efficiency

SCG agrees with The Quilt[1] that, "The benefits of consortium purchases extend into technical support where consortium buyers often get higher priority in technical support. Consortium buyers often obtain access to flexibly priced last mile circuits that allow connectors to grow into higher bandwidth commitments in an economical and efficient fashion."

SCG also highlights the Wisconsin Department of Public Instruction's [2]comments; "The benefits of R&E networks are well articulated in the paper Connections, Capacity, Community: Exploring Potential Benefits of Research and Education Networks for Public Libraries.[3] In Wisconsin, 75% of the public schools and 95% of the libraries get their Internet access via WiscNet, the state R&E network. In addition to basic Internet access, WiscNet offers a host of other services like technical support. And from a bandwidth perspective, WiscNet offers a flat fee for Internet access that does not increase as a school or library's bandwidth increases."

Many Networks already employ a skilled Client Network Engineering (CNE) group that could easily and relatively speaking, inexpensively, be leveraged to ease the burden on already overburdened local IT support personnel. Through specialized high-level network health assessments and monitoring, both quality of access as well as morale could be improved.

Cisco[4], Windstream[5] and others have commented in favor of a more comprehensive network management and provisioning approach. Networks are uniquely positioned to effectively and efficiently procure and deploy services such as CNE. As more school districts and library systems upgrade to higher bandwidth, DDoS and nefarious attacks can become a serious and challenging hurdle to overcome. Centralized security mitigates these risks and challenges and Networks, in particular, are already taking steps to address many of the issues that will face K-12 with higher speeds.

SCG highlights the Iowa Department of Education's[6] comments regarding additional cost savings for tangential services; "Each regional consortium offers the opportunity to be part of Internet aggregation through the intermediate school corporation network

[1] The Quilt ¶10 http://apps.fcc.gov/ecfs/document/view?id=7520943839
[2] Wisconsin Department of Public Instructions ¶11http://apps.fcc.gov/ecfs/document/view?id=7520943611
[3] http://www.tmng.com/knowledge-center/research-reports/research-and-education-networks-and-public-libraries
[4] Cisco ¶¶5 & 9 http://apps.fcc.gov/ecfs/document/view?id=7520944003
[5] Windstream ¶4 http://apps.fcc.gov/ecfs/document/view?id=7520943870
[6] Iowa Department of Education ¶11 http://apps.fcc.gov/ecfs/document/view?id=7520943991

hub. Costs are reduced for participating districts and schools, and each intermediate hub provides value-added services not currently eligible for E-rate funding (e.g., district and school network technical support). The technical support has been especially beneficial to the smallest rural districts where local technical expertise is often not available or affordable."

## B. Additional Benefits of Network Outside of Funding

The use of the Network is a benefit to schools and libraries beyond the savings gained through consortia procurement. Networks provide savings through bulk purchasing, network architecture, security, and a management framework through which schools and libraries may negotiate and/or implement individual policies. These network frameworks provide the platforms through which private sector providers of cloud based services may effectively ensure service level compliance and where school and library members find representation.

Pennsylvania has significant experience with consortia purchasing and demand aggregation. In 2004, Pennsylvania established the state E-Fund to provide a framework and a financing mechanism for upgrading broadband infrastructure in Pennsylvania's K-12 schools. It allocated $60 million over six years for telecommunications, equipment, distance education initiatives and technical support. The e-Fund was an experiment in "demand aggregation" whereby schools were encouraged to buy technology services together in order to get a better deal. The experiment worked. The E-Fund helped 678 schools across Pennsylvania increase their broadband capacity by an average of 534%. Old, expensive T1 circuits were replaced by new, affordable Ethernet access, and the number of schools using fiber optic cables more than doubled. Despite the six-fold increase in service, the E-Fund helped keep costs under control. Overall broadband price increases were limited to 1.9% annually after inflation while the price per unit of bandwidth declined 92%. These developments encouraged a culture of collaboration as schools worked together across regional boundaries to employ their new technology resources in the classroom.

Many Networks are exploring opportunities to bulk purchase and deploy applications like Mobile Device Management or video conferencing. Providing incentives for consortia would indirectly go a long way in allowing schools and libraries to finally move applications and hardware to the Cloud saving time, money and hardware headaches.

## III. Bulk Consortia Contracts

In encouraging bulk purchasing via consortia, the following should be considered: the benefits to the E-rate program will result in a more efficient use of the funds (as described above in Section II), and through those efficiencies, there are real potential savings to the E-rate program. Below are some examples for bulk consortia contract purchasing.

Paragraphs 186-190
Many of the savings realized by Networks result from volume purchasing and long-term contracts that often go ten years or more in length. In Utah, IRUs have reduced one long-haul, 10 GigE backbone segment cost from $50,005 per month to $250/month for on-going maintenance. An upfront cost of $350,000 for an IRU will reduce long term costs on this segment alone by a total of $11,591,200 for the term of the IRU, factoring in the upfront cost and maintenance on the fiber IRU. In Mississippi, a ten-year state contract signed in 2005 for MPLS-based Internet dropped from $50 per megabit in 2005 to $5 per megabit by 2013. That is a 90% drop in pricing, demonstrating the true benefit of consortia, multi-year contracts, bulk purchasing, and state master contracts.

Networks often partner with higher education institutions to purchase broadband services and Internet access. An Iowa partnership between the Iowa Communications Network (a statewide fiber network that serves K-12 and libraries as well as other public entities) and the Iowa Regent universities, have enabled all entities to acquire affordable wholesale Internet. The combined buying power, plus the access to an Internet backbone hub in Chicago, allowed a lower price for Internet, a savings that was passed on to schools and libraries (and realized by the Regent universities as well).

The SCG strongly agrees with commenters that bulk buying should remain the responsibility of states and their coalitions rather than being assumed by USAC or another third-party entity. NASCIO[7] summarizes the expertise that already exists to assist with bulk buying, “NASCIO supports the promotion of statewide bulk purchasing contracts, and national purchasing vehicles such as the Western States Contracting Alliance (WSCA) and U.S. Communities. These institutions provide significant management oversight by procurement professionals, program auditing, and best price guarantees to purchasers. These groups already have alignment with state and local procurement statutes and a formal process for participation agreements.”

As noted by several commenters, (e.g. Missouri Research and Education Network, EdLiNC, Education Coalition, Florida Department of Management Services, State of

[7] NASCIO Page 3 http://apps.fcc.gov/ecfs/document/view?id=7520943382

Nebraska Office of Chief Information Officer, Kentucky Department of Education, Texas Education Telecommunications Network and the West Virginia Department of Education) and in initial comments by SCG, filing for E-rate funding via consortia using Form 471 is an advantage to the members they serve as well as the E-rate fund itself. Education Coalition[8] argues convincingly, "… in order for the E-Rate program to successfully fund the needs of tomorrow's schools, the promotion of more consortium-based participation, bulk purchasing, and funding transparency may be the most significant steps the Commission can make to ensure the long term sustainability of the E-Rate program."

Buying power is increased through bulk buying, and additional E-rate related services such as centralized Internet filtering and technical networking expertise are provided in a cost-effective manner by consortia leads which are often state or regional networks. For example, the Utah Education Network provides a real-time network health report and real-time network traffic map for the districts and schools it serves. The nine Iowa Area Education Agency consortia that aggregate Internet traffic through regional hubs provide technical network assistance for the consortia member districts and schools.

Paragraphs 202-206
Commenters from several different states (e.g. Iowa Department of Education , Florida Department of Management Services Kansas Department of Education , Alabama Department of Education , Utah Education Network , West Virginia Department of Education, Wisconsin Department of Public Instruction ) all noted that state procurement laws and the state oversight of competitive bidding is already well established as is a rigorous audit process. The SCG agrees with these commenters that pertinent state laws should be relied upon for state master contracts and state contracts rather than the current E-rate procurement regulations. The SCG assures that states already have very stringent competitive bidding laws ensuring the lowest prices for goods and services are obtained. Too often the E-rate procurement rules and cycles are at odds with existing state laws and state procurement processes (i.e. when the state may bid and how long it must go out for bid as well as the individual steps within the bidding process). Further, as stated above, the length of these state contracts should be determined at the state's procurement discretion rather than an arbitrary term fixed by E-rate rules. (Depending upon the particular goods and services being procured, there may be a different process that applies to each). To simplify the E-rate application process, a simple certification checkbox on Form 470 can indicate that the applicant is relying upon state law and/or processes for procuring E-rate eligible goods and services. Once the certification is made on Form 470, the certification then

[8] Education Coalition Page 19 http://apps.fcc.gov/ecfs/document/view?id=7520943873

indicates that state procurement processes and timelines apply, rather than the existing E-rate procurement rules.

Bulk buying can lower costs, but equally as important, it can reduce administrative paperwork and contracting procedures for schools.

We encourage the FCC to deem all state commodity/equipment contracts as E-rate eligible, even if no Form 470 was posted. State purchasing power alone guarantees extremely low equipment rates. However, it is common for state contracts to be bid by agencies that cannot match the E-rate bidding and contract signing deadlines and for years, these contracts have gone unused as a result. A perfect example is the PA Co-Stars Contract, which is administered by the PA Department of General Services. Because of the strict E-rate bidding and contract signing rules, no PA school or library has ever been able to use this contract for E-rate purchases, despite the fact that the rates offered by vendors on this contract are extremely low.

Further, when schools bid equipment using a Form 470, each separate school must negotiate and sign their own contracts with each vendor and may be required by state or local regulations to seek board approval. By purchasing from the State Contract, they can rely on the state-negotiated Terms and Conditions and simply obtain a vendor quote in order to file the Form 471, thus cutting off 2-3 months of added administrative time. State contracts are developed so individual state agencies don't have to negotiate terms and pricing with vendors and sign individual contracts. In many states, schools are permitted to piggy-back off of these state contracts. The FCC should permit schools to take advantage of these processes that have been established.

Finally, the Commission should immediately repeal the Queen of Peace restrictions for state master contracts. When this decision was issued in October 2012, it required all Form 470s/RFPs to use the words "or equivalent" which nullified all state master contracts for community products because such contracts bid dozens or hundreds of product lines and therefore cannot use the term "or equivalent" in its bidding documents. We do not believe the Commission originally intended for Queen of Peace to invalidate a number of state master contracts, but this has been the result. The intent of Queen of Peace was to ensure that schools had the opportunity to purchase equivalent products that may be less expensive and not restrict themselves to a single vendor responding to an RFP. In our opinion, state master contracts that contain dozens or hundreds of equivalent manufacturer's product lines provide this opportunity and therefore meet this test.

## IV. Incentives for Consortia Applications

There are a multitude of reasons why the Commission should continue to encourage consortia.

- Consortia can help facilitate better discounts with their buying power.
- Consortia typically have the ability to motivate telecommunication providers to connect to hard to reach locations with lower profit margins for the telecommunication providers.
- Consortia reduce the requirement for expertise within each school district and concentrates efforts at the higher technical levels.
- Consortia allow for aggregation of entities to more cost-effectively connect to the Internet.

The SCG wishes to inform the FCC that consortium purchasing at the statewide level has successfully inspired competition, not diminished competition. By listing large numbers of school and library sites within a single RFP cycle, bidders are able to achieve a more efficient bid response by not having to replicate their legal terms and conditions and respond to multiple, locally driven RFPs. Another successful RFP technique that has been used by state consortium groups and state networks is to have potential providers bid "one, some or all" the number of sites and also allow the potential providers to select from multiple network aggregation points to accommodate their fiber topography. In this instance, the state network backbone performs the interconnections, once the network participant has reached the state backbone. This technique has the potential to stimulate additional competition and lower prices, particularly in rural areas.

### A. Prioritization of Review

We agree with commenters such as the Wisconsin Department of Public Instruction's sentiments at p10., "We strongly support implementing more "consortium-friendly" application processes (¶182). In fact, we posit that currently there are almost no such processes. For example, the basic forms are not designed for large consortia applications. However, much more important—and frustrating—is the seemingly endless and onerous consortium application review process."

Consortia applications and review should be streamlined and prioritized. Tedious reviews and significant funding delays discourage consortia for no apparent reason. While it may not be practical to "fund consortia applications first at all discount levels" as

EducationSuperHighway[9] has suggested, it may be practical to incorporate an early filing and/or early review window specifically for consortia. Additional streamlining should also be implemented where the consortium lead is a state agency or Research & Education Network with statutory authority.

### B. Consortia Incentives

SCG supports inducements in the form of higher discounts for consortia.We agree with comments by EDLiNC[10], "EdLiNC understands the value of consortia applications in terms of increased bargaining power, more efficient use of resources and, last but by no means least, less administrative burden on USAC by lowering the number of applications received. We were heartened to see the results of CoSN's forthcoming survey that indicates that 37% of school districts participate in consortium buying, with some participating in more than one purchasing cooperative. We support efforts by the Commission to incentivize applicants to join consortia but believe that any action by the Commission on this front should take the form of inducements and not mandates."

We encourage the FCC to implement similar incentives for E-rate consortia funding. Currently there are disincentives for schools to join or create consortia, such as extreme delays in funding commitments, increased scrutiny due to large dollar applications, additional forms that need to be collected and the personnel cost of administering a consortia. We believe that all of these disincentives can be changed to incentives and recommend the following:

- Consortia applications should be given an additional 10% E-rate discount on recurring services (not to exceed a 90% discount level).
- Consortia applications should be given higher priority in application review.
- If required by Commission rules, the Form 479 should be permitted to be coterminous with the Letter of Agency or allow the LOA to include the certifications required in the Form 479.

### C. Filtering at the State Level

CIPA is not a law that asks for or needs help from E-rate or the FCC. It stands alone. According to FCC regulations, April 2001, "We conclude that local authorities are best situated to choose which technology measures will be most appropriate for their relevant communities."

[9] EducationSuperHighway ¶¶30-31 http://apps.fcc.gov/ecfs/document/view?id=7520944087
[10] EDLiNC ¶29 http://apps.fcc.gov/ecfs/document/view?id=7520943930

Web security and Internet safety are fundamental to the goals that the Commission and the National Broadband Plan have espoused. State Networks and their providers are perfectly positioned to save schools and libraries money and time by centralizing filtering. This eliminates the need to have a person in every school and district monitoring and filtering for every device - whether school owned or BYOD - on the network. Cost savings are realized when bulk purchases are allowed versus the exponential costs of individual school and district contracting for equipment and software.

Additionally, state-level networks should be allowed to ask for filtering as a no-cost inclusion during the procurement process for Internet service. This is in the best interest of students.

On this issue, we agree with EducationSuperHighway [11] "In order to ensure that schools and libraries can take advantage of the promise of digital learning, the FCC must refocus the E-rate Program on supporting services and equipment that are required for robust broadband infrastructure. These include Internet access (including middle-mile connectivity to reach from a community to an Internet point of presence), WAN operating and maintenance costs, incremental upgrades to WAN optical equipment, LAN/Wi-Fi upgrades to enhance capacity on a 5-7 year timeline, and other key broadband infrastructure such as firewalls and content filters."

Another benefit to having a consortia-network is the ability to filter individual devices at the network level, rather than per each device. Not only does this afford a more cost-effective means by which to filter, this method also allows devices, such as eReaders, that are Internet-enabled, but do not allow for software or applications installations of filtering products.

## V. Streamlining the Program and Application Process

### A. Application Streamlining

Paragraphs 226-230, 241, and 243

The SCG strongly agrees with the proposal by SECA[12] to create a centralized portal that would be easily accessible by both the applicant and the reviewer. This proposal

[11] EducationSuperHighway ¶13 http://apps.fcc.gov/ecfs/document/view?id=7520944087
[12] SECA ¶43 http://apps.fcc.gov/ecfs/document/view?id=7520944060

was viewed positively by numerous commenters with no dissension to this concept noted in initial comments. In particular SCG advocates that use of the portal with the ability to both retrieve and copy a prior year's form 471 (not just block 4 data but the entire application) would speed up consortia filings and the resulting PIA review.

The SCG concurs with utilizing district-wide eligibility on form 471, including block 4 data entry by consortia. Rather than listing individual school buildings on block 4, SCG agrees with commenters that only the individual district names along with enrollments and NSLP data should be listed on block 4. Not only does this streamline the review process, it is reality in terms of how SCG members provide services to the districts in each consortia. SCG members provide services that are district-wide and statewide and the addition or removal of individual buildings has no impact on the quantity and cost of services provided. As has been observed by other commenters, this streamlining of the application process will favor both the applicant and the reviewer.

## B. Evergreen Form 471 Process

Paragraphs 226-230, 241, and 243

In addition, the SCG strongly agrees with the concept in paragraphs 241 and 243 that the application process for multi-year contracts should be greatly streamlined so that an annual repetitive review of a multi-year contract is eliminated. The contract should be reviewed by PIA in the first year of signing only. To that point, the SCG proposes the following:

- A new Form 471 will be filed each year, even in the case of multi-year contracts. With the proposed portal, the ability to efficiently copy the previous year's Form 471 application will expedite the process.

- If there are no changes on Form 471 from the previous year, the applicant simply submits the newly copied Form 471 application and certifies with a PIN. Such a process should take no more than a few minutes and can be submitted in the opening days of the window. The "copy and certify" process eliminates any possibility of clerical errors on a Form 471 application.

- For those applicants with minor changes to either block 4 and/or block 5 from the previous year, (e.g. consortia member additions and deletions in block 4; changes in pricing in block 5 resulting from price drops or an increase in bandwidth/capacity), the copied Form 471 will allow for easy modifications. This

ability to make annual updates on a block 5 funding request provides an efficient "service substitution" since most multi-year contracts include provisions for upgrades to network services (e.g. moving from ATM to MPLS).

- With the ability for the entire Form 471 from a previous year to be copied, block 5 as it pertains to a multi-year contract may simply be modified as needed. The current form 471, block 5, item 15d, already has language to indicate that the funding request is based upon a multi-year contract, thereby expediting the review of the particular FRN:
    - Check this box if this Funding Request is a continuation of an FRN from a previous funding year based on a multi-year contract. If so, provide that FRN here:
- Changes to recurring and non-recurring costs may be easily updated as well.
- Minor contract amendments and modifications may then be described in more detail in Item 21 so that the application review may be expedited.

SCG, and many others, are gravely concerned about the reasons and methodology behind the new "data collection" section of the Form 471, Item 24c, for consortia since the wording is duplicative of the individual district/school/library Form 471 (Items 24a and 24b). We await clearer guidance on exactly what the Commission's ultimate goal is and hope that data collection is a part of a thoughtful and meaningful process and not an added burden, "gotcha," if you will, for applicants simply trying to get an application processed.

## C. Evergreen Form 471 Contract Terms and Requirements

Paragraph 242

The length of any E-rate contract shall follow state and/or local laws. A contract time limit should not be imposed by FCC rules because time limits would circumvent state procurement rules. Benefits to a multi-year contract also helps in determining the demand estimate for commitments years ahead of time.

Paragraphs 226-230, 241, and 243

At the time a state contract is signed, the state consortium lead submits the pertinent state contract to PIA for review rather than waiting several months (or years) into the E-

rate cycle for the review of the contract. Not only does this efficiently allow for PIA review in advance of form 471 filing, it expedites any future audit process as well.

While a contract may cover multiple years, the Form 471 funding request review will occur at the start of the fourth year of the contract. (e.g. a contract signed in 2015 would have three years of commitments before being reviewed again - at the beginning of 2018) The purpose of reviewing the Form 471 Block 5 once every three years is to "true up" the current version of the contract.

## D. The Portal Concept

Paragraphs 126-132
Paragraphs 226-230, 241, and 243
The SCG strongly agrees with the proposal by SECA[13] to create a centralized portal that would be easily accessible by both the applicant and the reviewer. This proposal was viewed positively by numerous commenters with no dissension to this concept noted in initial comments. In particular SCG advocates that use of the portal with the ability to both retrieve and copy a prior year's form 471 (not just block 4 data but the entire application) would speed up consortia filings and the resulting PIA review.

The SCG concurs with utilizing district-wide eligibility on form 471, including block 4 data entry by consortia. Rather than listing individual school buildings on block 4, SCG agrees with commenters that only the individual district names along with enrollments and NSLP data should be listed on block 4. Not only does this streamline the review process, it is reality in terms of how SCG members provide services to the districts in each consortia. SCG members provide services that are district-wide and statewide and the addition or removal of individual buildings has no impact on the quantity and cost of services provided. As has been observed by other commenters, this streamlining of the application process will favor both the applicant and the reviewer.

## E. Eliminate Unnecessary Forms and Documents

We agree with the multitude of commenters that would like to see the elimination of the Form 479. We feel this is another unnecessary process that adds to the paperwork required. We are already sending out a letter of agency to our consortia participants

[13] SECA ¶43 http://apps.fcc.gov/ecfs/document/view?id=7520944060

and compliance certification is better captured in the LOA than a separate form. In the spirit of the paperwork reduction act, we recommend the elimination of the Form 479.

## F. Priority 1 Streamlining

Paragraphs 143-148

Based upon the recommendations from SECA[14] and SETDA[15] , the SCG agrees that the priority 1 category warrants a newly focused definition that includes "whole network" broadband connectivity to and within buildings. SETDA succinctly states the importance of this emphasis in their comments,"… a high-capacity broadband connection to the school doors that cannot be efficiently and effectively distributed throughout the building to students and teachers serves no one's interests. A modernized E-rate program must be structured to support the delivery of broadband to and within all school buildings." This new categorization raises potential benefits for consortia members and the E-rate fund as a result of the purchasing power of consortia, especially through state negotiated contracts for E-rate eligible goods and services. Further, the SCG strongly recommends that the new P1 category allow for consortia filing for equipment that provides shared core broadband services (e.g. a core multipoint control unit/MCU that serves all entities in the consortium). The SCG also recognizes that a consolidated bidding and form 471 filing for "edge" terminating devices (e.g. routers and switches at the WAN level) may greatly advantage consortia members and be a very cost-effective purchase. However, the SCG does recognize that there may be unintended consequences with this mixture of "core" equipment and "edge" equipment requests on a consortia form 471 application (i.e. how to ensure that individual districts do not request duplicative "edge" equipment on their own district form 471 applications.) SCG contends there can be an equitable and effective solution to this challenge and SCG members welcome the opportunity to explore this further through an ex parte filing.

## G. Priority 2 Streamlining

Paragraphs 143-148

If radical reform is not made during proceeding 13-184, SCG suggests revisiting this issue as quickly as possible in a Further Notice of Proposed Rulemaking.

The connectivity challenges facing SCG members are not just connections to school and library buildings but also within the buildings themselves. The SCG finds the

[14] SECA ¶12 http://apps.fcc.gov/ecfs/document/view?id=7520944060

[15] SETDA ¶19 http://apps.fcc.gov/ecfs/document/view?id=7520944050

comments by the LEAD Commission to be compelling, “The most immediate and expensive barrier to implementing technology in education is inadequate infrastructure, including high-speed Internet connectivity and suitable Internet-enabled devices. Progress is challenged in part by the bandwidth and resource crunch that bottlenecks many schools. These limitations have a direct impact on classroom learning.”

In its initial comments[16], the SCG recommended elimination of the 2-in-5 rule for internal connections, a recommendation echoed by several other commenters. The SCG stands by its initial comments that 2-in-5 has not served its intended purpose. As noted in initial SCG comments, implementation of the 2-in-5 rule has been further complicated for consortia when applicants and consortium leads are unable to synchronize purchasing, with the result that any consortia-member school’s two-in-five funding can be maxed out with one piece of equipment purchased locally in year one and one state network router in year two.

## VI. Dark Fiber/Fiber Build outs

Dark fiber should be treated the same as lit fiber. Applicants that have no other cost effective or viable option for high-speed broadband connectivity need the ability to build out the necessary infrastructure, therefore SCG does support the eligibility of special construction charges for dark fiber build outs.

### A. Building out Services by the Applicant

Overview: After fifteen years of E-rate funding there are still schools and libraries across the country that do not have broadband because they cannot afford the build out, service is not available or affordable. In many of the comments and discussions around broadband it appears that the missing piece is that the statute states that applicants should have not just broadband access but ***affordable*** broadband access.

The driving factor for the recommendation of allowing applicants to build their own fiber infrastructure is to help ensure schools and libraries that have not had a telecommunication provider offer affordable service. This is not necessarily the first choice of an applicant, but can be an option for them to pursue, after they have considered other options, if available, and looked at the initial and ongoing cost and the expertise it will take to maintain their own fiber infrastructure.

Another factor that the criteria outlined below in evaluating if a lit fiber service is a viable option is to help long term telecom carriers in providing internet access services to the

[16] SCG ¶4 http://apps.fcc.gov/ecfs/document/view?id=7520944137

homes. Since schools/libraries are traditionally anchor institutes for smaller and rural locations, we want to avoid creating conditions or environments over the long term that might stifle telecommunication/cable companies' investment and expansion for consumers in their low density or rural locations.

**B. Lighting leased/dark fiber:**

Leased fiber should be an eligible service for applicants that need to build out fiber using the following criteria:

1. Incumbent pricing is too high
    - It is more cost effective than leasing broadband connectivity, regardless of the current technology from traditional telecom/cable company.
2. Must comply with state procurement laws
3. Should be open access to fiber conduit available to others.
    - This criteria is critical to ensure that future growth for homes and businesses still have a business case for telecom/cable companies. Access to the conduit will allow a business case that does not require schools/libraries to be the anchor institutions.
4. Must place an additional conduit (empty) that will have ownership transferred back to a local Joint Pole Attachment Association (JPAA) when there is one or more fiber providers requesting permit to build out to the local community for homes and small business.
5. Fiber build out should be completed within five years unless there are extenuating circumstances beyond the applicant and provider's control. The funding should remain available to the applicant until construction is completed. The deadlines associated with build out should be treated separately than other Priority One services.
6. Fiber build out should result in availability for a minimum of five years:
    - There must be a business case that shows more cost effective for 5 years+, and terms and contracts, i.e renting existing fiber with an IRU , etc.
7. On going Support:
    - Applicant must have expertise available to provide initial design, and support.The available expert must have a proven track record of implementing complex networks and the ability to manage permitting and construction work of this nature.

### C. Issues and Concerns

- Some government agencies cannot build their own fiber network due to laws
- State law may restrict whether or not fiber can be shared.
- If the fiber infrastructure is not deployed in such a way that it can be shared with others the build out is not eligible for funding. The point of connection for the shared infrastructure will be in the public right-of-way not at the applicant location.

### D. Benefits

- Creates competition where none currently exists
- Gets fiber where LECS aren't interested in going due to lack of business case

### E. Strategic Fiber Building Conclusion

As you can see by the information and strategy above, there is the need and an application method that will facilitate connectivity options that are not replacing the private enterprise approach to the United State infrastructure, but meeting a need for infrastructure that is not being met by long term telecommunication companies, cable companies, or regional Bells. It is important to not make program changes that will later lessen or stifle innovative infrastructure builds, such as what Google Fiber has done in Kansas City, Kansas. According to Google Access project leader Kevin Lo, and addressed in SECA's Initial Comments: "There's a myth that consumers don't want, won't pay for, or don't need high-speed broadband. Based on our experience that simply isn't true. There's huge demand for faster Internet," Lo said. "Even companies that said publicly that customers don't want higher speeds have begun to raise their speeds and lower prices in Google Fiber markets."[17]

Criteria B.4. outlined above is a critical element in the success of our recommendation. This will ensure that any opposition from the telecommunication can be defended and provide long term access opportunity for home and business broadband access.

### F. Comparison To Health Care Connect Order

SECA agrees with the FCC that the safeguards enacted in the Health Care Connect Order should serve as the foundation of the rules for the E-Rate program. Specifically SECA believes that the school or library-owned infrastructure option may be employed

[17] Google Fiber/Kansas City http://news.cnet.com/8301-1023_3-57608610-93/got-google-fiber-envy-here-are-three-steps-to-pave-the-way/

only where self-construction is demonstrated to be the most cost-effective option after competitive bidding based on the following requirements:

1. Applicants interested in pursuing self-construction as an option must solicit bids both for services and for construction.
2. Applicants must also issue a Request for Proposal to solicit bids in addition to posting a form 470.
3. The Request for Proposal must contain sufficient detail so that the applicant will be able to show either that no vendor has submitted a bid to provide the requested services, or that the bids for self-construction were the most cost-effective option.
4. RFPs must provide sufficient detail so that cost-effectiveness can be evaluated over the useful life of the facility, if the applicant pursues a self-construction option.
5. Applicants that received no bids on a services-only posting may pursue a self-construction option through a second posting.
6. Non-recurring costs in excess of $500,000 must be amortized over a minimum of three years consistent with existing E-Rate requirements.

SECA also believes that the FCC should articulate the specific factors that need to be considered in evaluating the cost-effectiveness of the self-construction option compared to a leasing option:

- Life cycle of the cost-effectiveness analysis should be four to five years.
- Cost categories to be included: facility costs, construction (labor) costs, permitting costs, pole rental costs (if applicable), maintenance, on-premise equipment to use the service, network monitoring service.
- The Pennsylvania Association of Intermediate Units (PAIU) whose members manage 26 regional wide area networks in Pennsylvania made a good point that if the Commission allows for the purchase of fiber networks, they also should regard the purchase of microwave equally to the purchase of fiber. They state that in many cases, purchasing microwave is the most cost effective technology for schools in rural areas and even those in non-rural areas who encounter extremely high vendor telephone pole lease costs or where the poles are too full. SECA agrees with this statement.

In general, SECA agrees with the FCC's observations in the *Healthcare Connect Fund Order* that the self-construction option should rarely be needed or utilized. But for applicants that lack any other way to obtain broadband service, this option is their only hope and must be available to them.

## VII. Per-pupil Funding Model

The SCG does not agree with the per-pupil funding model. Network design and support works better with a NEEDS-based approach. Across the nation there is not a "one size fits all" network design. Even with a premium per pupil allocation, there will still be issues for remote locations having adequate funding. At this point in time with the program, the schools that are not connected are in a category of hard to reach, and will take additional one time funding, and may have higher than average annual costs. These students have the same educational needs as other students, and deserve equity of access. This is another example of why additional funds will be needed for the program.

While many have advocated that funding follow the pupil, the cost of connecting the school to the network is also facility based. Installation of fiber is expensive. Once the fiber is installed the capacity or per meg per student required is student based.

**Total Funding per State (Including all schools and libraries)**

| State | % of Annual State E-rate Dollars Attributed to Consortia |
|---|---|
| Utah Education Network* | 77% |
| West Virginia | 46% |
| Wisconsin | 43% |
| Arkansas | 38% |
| State of Iowa Consortium | 28% |

* UEN requests make up 77% of all Utah applicant requests, including charters, libraries, Head Starts, and other non-traditional entities such as our regional service centers.

The Funds for Learning proposal does not adequately address Network applications based on the data in the table above. The FFL proposal does not take into account state or regional consortia needs.

## VIII. Emergency Response

SCG concurs with the initial comments of groups such as SECA, ALA, the West Virginia Department of Education, the Iowa Department of Education and E-Rate Central that the FCC should establish special E-rate procedures for emergency relief in

those circumstances where damaged or destroyed schools and libraries are deemed to be in a federal disaster area.

In particular, SCG agrees with the procedures advocated by SECA in its initial comments:

- The procedures for providing relief from natural disasters should be invoked whenever a Presidential Disaster Declaration is made, for the schools and libraries located in the area included within the Declaration; Identify a lead agency in the impacted state that will agree to examine affected facilities and to certify that E□rate eligible damage and/or destruction occurred;
- Require affected applicants to certify that the services and products on this application will be solely used to restore the network to the same pre□disaster degree of functionality; (SCG wishes to disagree with this particular statement. Services and products should be allowed which are current industry standards of technology rather than requiring replacement with outdated equipment.·
- Require affected applicants to certify that any duplicate funding (i.e. insurance, FEMA, community resources) in excess of 90% of the cost for products or services requested on this application will be returned to the Universal Service Fund;
- Provide flexibility and rule waivers to allow applicants to dispose of equipment, obtain service substitutions to redirect funding where it is needed, allow transfer of services and equipment to other buildings, recognize that students may be transferred to other buildings;
- Waive documentation retention requirements for affected applicants;
- As noted above, the period of time for using the E□rate funding for disaster recovery should be extended to accommodate the time frame of the reconstruction efforts.
- The FCC should also ensure, if it has not done so already, to appoint a liaison with the Federal Emergency Management Agency who is familiar with E□rate and who can assist applicants.
- If a state or territory without a State E□rate Coordinator (or whose coordinator was taxed with other responsibilities) or if any state or territory felt it would be beneficial, SECA members with experience concerning E□rate disaster relief efforts would be happy to assist other states in their time of need.

In addition to the recommendations from SECA, the SCG would further encourage that the emergency procedures allow for the following:

- Allow increased services such as additional Internet capacity to accommodate displaced citizens and students (ALA)

- Relax rules regarding disposal of E-rate funded equipment in cases where that items are damaged or destroyed beyond reasonable repair (E-Rate Central)

## IX. Conclusion

In closing, SCG again appreciates the opportunity to be a part of the transformation to E-rate 2.0 in order to meet the classroom needs of the future. The information above includes just some of the benefits and efforts of State Network Consortia. In addition to encouraging the FCC to form a group of small and large applicants from a variety of backgrounds within the schools and libraries community, we also encourage representatives from other national groups such as the State E-rate Coordinators' Alliance (SECA), American Library Association (ALA), and the E-rate Management Professionals (E-mpa™). SCG will also be open to the opportunity to share with the FCC and applicants the best practices that have been developed through our members' experiences during the last 16 years of E-rate.

Sincerely,

/s/ Russ Selken
State Consortium Group Chair (SCG)